Docket No.: 1293.1829

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:
Young-woo LEE et al.
Serial No. 10/673,143
Confirmation No. 3823
Filed: September 30, 2003

Group Art Unit: 2627

Examiner: Aristotelis M. PSITOS

For: APPARATUS, METHOD, AND MEDIUM INCLUDING COMPUTER READABLE CODE FOR DISCRIMINATING RECORDING MEDIUM TYPE

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

This is a "pre-appeal brief request for review" filed concurrently with a Notice of Appeal appealing the final rejection of claims 1-8, 15-21, 27-33, and 38-44 in the June 16, 2008 Final Office Action. A petition for a two-month extension of time is concurrently filed herewith, along with a Notice of Appeal, thereby extending due date to November 17, 2008, with November 16, 2008 falling on a weekend.

Claims 1-5, 15, 16, 18, 27, 28, and 30 stand rejected under 35 USC §103(a) as being obvious over Ogihara, U.S. Patent No. 6,868,051 (or European Patent No. 1191529), in view of Hwang, European Patent No. 1041553; claims 6-8, 17, 19-21, 29, 31-33, and 39-44 stand rejected under 35 USC §103(a) as being obvious over Ogihara and Hwang, in view of Morita, U.S. Patent No. 6,207,247; claims 1, 2, 15, and 27 stand rejected under 35 USC §103(a) as being obvious over Watanabe, U.S. Patent No. 6,493,304, in view of Hwang', Japanese publication 2000-285582 related to Hwang; claims 5, 16, and 28 stand rejected under 35 USC §103(a) as being obvious over Watanabe and Hwang', in view of Ogihara, and claims 3, 4, 17, 18, 29, 30-33, and 38-44 stand rejected under 35 USC §103(a) as being obvious over Watanabe and Hwang' in view of Ohta, U.S. Patent No. 6,751,171.

A pre-appeal brief panel review of below appealable issues is respectfully requested.

It is respectfully submitted that the Examiner has failed to meet all requirements of examination set forth in the MPEP, including MPEP 707.07(f) requiring the Examiner to address all of applicants' remarks, and MPEP 2143.01, for example, providing support that it is not obvious to make a fundamental change of one reference away from its corresponding principle operation. In addition, it is further respectfully submitted that the Examiner has not provided sufficient evidence supporting the obviousness rejection or sufficient evidence that there would have been a reasonable chance of success for the Examiner's proposed combination.

Firstly, regarding the requirement of MPEP 707.07(f), the outstanding Office Action has only addressed issues regarding potentially how the relied upon references are being utilized, and briefly concluded that at least some aspect of the different disc discrimination method of Hwang would be equally applicable and apparently interchangeable with the disc discrimination method of Ogihara or Watanabe, and has failed to at

least address applicants comments regarding MPEP 2143.01, which specifically points out that it would not have obvious to fundamentally change the principle operation of either Ogihara or Watanabe.

The Examiner has also failed to address comments regarding the underlying teachings of each of Ogihara, Watanabe, or Hwang, for example, as to what each reference teaches and why each reference implements their respective solutions. The Examiner has also failed to provide evidence in the record supporting the concluded reasons for combining the identified features, nor properly set forth a prima facie obviousness case as defined under KSR.

The Examiner stated in the Advisory Action issued August 25, 2008, that:

> [T]he ability of evaluating a signal as presented in Ogihara where the evaluation first determines if one signal is greater than/or not of another signal and then indicating what type of disc has been discriminated still requires an identification of what the signal/s themselves are. What type of disc is represented by LV1 or LV2? The secondary reference to Hwang makes a decision without the intermediate step of detecting which signal is greater than another, but rather a comparison to set values/s. Such alternative protocols are considered equivalent because both require a comparison of signal and a correspondence of such an evaluated result with established parameters associated with different disc types leading to the same outcome.

As another example, on pages 2-3 of the Office Action issued June 16, 2008, the rejection first states features of Ogihara that may be interpreted to read on some of the features of independent claim 1, for example, and then identifies features of Hwang that are relied upon to set forth deficient features (or would meet the deficient features if incorporated into Ogihara), and then states:

> "It would have been obvious to modify the base system of Ogihara with the teaching from the secondary reference (Hwang) motivation is to properly obtain a disc discrimination predicated upon alternate equivalent signal processing methods using comparison of selected signals with pre-stored values. The examiner concludes that whether one compares the signal of interest with each other to make a discrimination, or alternatively to compare with pre-stored values indicative of the set of media is merely an obvious selection between alternatives with no unexpected results occurring."

These conclusions by the Examiner of what would be an equivalent or whether a substitution would have resulted in unexpected results are not evidence, but conclusions. Further, the reliance on such rationales do not support a prima facie obviousness case. KSR requires evidence within the record and reaffirms that there must be some "reason" for the modification other than the Examiner believes their combination obvious. The rejections based upon Watanabe similarly merely concluded that it would have been obvious to modify Watanabe to include the features of Hwang, without any further discussion or reason for the combination "since the use of alternative equivalent comparison protocols is considered an obvious choice to one of ordinary skill in the art." The Office Action issued June 16, 2008 remarks that a potential reason for the modifying Watanabe would be to increase the available types of discs that could be detected, briefly noting that the disclosure of Watanabe would actually appear to set forth substantially more types of detectable types of discs than Hwang.

Further, these proposed modifications of the reference(s) do not take into consideration the underlying teaching of each reference. Rather, the Examiner has merely chosen features from different references and concluded that it would have been obvious to create a combination that would then read on the claims.

In this regard, using the proposed modification of Ogihara as an example, the Examiner appears to indicate on page 3 of the outstanding Office Action, that only the base system of Ogihara is being used (or only a portion of it), including the detecting of amplitude values, for the purpose of disc discrimination, and that the remainder of the system of comparing the amplitude of the two band-pass filtered RF signals is being changed to both determine the corresponding wobble amplitude and to compare that determined amplitude to a pre-stored value. The Examiner relies upon Hwang to disclose this alternative disc discrimination technique/method, and in particular appears to rely upon a signal peak-peak maxima detection scheme of Hwang to read on the claimed wobble amplitude detection in the independent claims; in Hwang, different peak-peak maxima of a received RF signal can be used to identify the underlying disc type.

Though the Examiner indicates that the rejection is not based on a substitution of the hardware of Hwang into Ogihara, it is respectfully submitted that sufficient changes would be necessary to Ogihara to implement any portion of the relied upon features of Hwang such that the principle operation and invention of Ogihara would be frustrated. Further, such proposed changes to Ogihara would require additional operations and would be more complex than the un-modified Ogihara.

As noted in applicants previous response, a primary advantage and feature of Ogihara would appear to be the observation of using the recording frequencies of different wobbles on different media, e.g., with differing track pitches resulting in different wobble frequencies or different media types recording wobbles with differing frequencies. Using this knowledge of the expected frequencies, Ogihara sets forth two band-pass filters that can be used to differently band-pass the RF pickup signal. Thus, by merely observing the different outputs from the band-pass filters it can be determined whether the RF signal represents wobbles consistent with a first media or whether the RF signal represents wobbles consistent with a second media.

Thus, the primary focus and reliance of Ogihara is on these different frequency characteristics, and that the frequency characteristics can be monitored to determine the media type. An inventive aspect of Ogihara would appear to be the recognition of these different frequency characteristics.

Differently, Hwang is based on a premise and apparent inventive aspect that due to the different track pitches and different recording methodologies there will be correspondingly detectable changes in the envelope of an RF pickup signal. See paragraphs [0022]-[0026] of Hwang.

Accordingly, a focus of Hwang is on using detected differences in envelope maxims, and determining the type of media based upon the a calculated average change in envelope. A minimum average level represents a DVD-RAM, an average level meeting a predetermined first level represents a DVD-ROM, and an average level meeting a greater predetermined level represents a CD.

Thus, Ogihara is focused on using the frequency of the wobbles in different media to determine the media type, while Hwang is focused on using the differences in changes of RF maxims between different media. Accordingly, it is respectfully submitted that there is no reason why one skilled in the art would look to Hwang to solve a problem of Ogihara, without substantially changing the underlying process of Ogihara; such a

modification of Ogihara would change the principle operation of Ogihara. The two systems solve similar disc discriminations in substantially different ways. A modification of Ogihara to perform such a different disc discrimination process would require a fundamental change in Ogihara away from the already existing disc discrimination process that is based upon a substantially different recognition of detectable characteristics that can identify a type of disc.

Therefore, both as Ogihara does not need such a change and because such a change would substantially change the underlying principle operation of Ogihara, it would not have been obvious to modify Ogihara as proposed by the Examiner. In addition, the proposed modification of Watanabe is based upon a similar rejection rationale, without a consideration of the underlying systems. Watanabe, like Ogihara, sets forth a primarily different system and approach from that of Hwang'.

Here, briefly, the Advisory Action issued August 25, 2008, indicates that a reason for modifying Ogihara, for example, is because Ogihara requires an operation of determining which of two detected levels, LV1 or LV2, represents which type of disc, and that Hwang would not have such a 'problem' of discerning which disc type corresponds to which detected level or level comparison.

However, again using Ogihara as an example, Ogihara in col. 3, line 52, through col. 4, line 15, clearly explains at what particular frequencies the respective band pass filters are centered and how each of LV1 and LV2 are generated. Thus, there is a clear explanation in Ogihara of what frequency ranges, representing particular groove wobbling frequencies, each of LV1 and LV2. Ogihara explains that the filter used for generating LV1 is centered around 140kHz, corresponding to the wobble frequency of 140kHz of a DVD-RW disc. Ogihara further explains that the filter used for generating LV2 is centered around 810kHz, corresponding to the wobble frequency of 810kHz of a DVD+RW disc. Accordingly, Ogihara is clear as to how LV1 and LV2 can be used to identify the type of disc.

Thus, the Examiner's recited reason for modifying Ogihara, because of the unknown disc type represented by either of LV1 and LV2, is not supported by the record. Ogihara clearly provides one skilled in the art sufficient disclosure to know what disc type each of LV1 and LV2 can represent. Thus, this reasoning is incorrect for supporting an obviousness rejection proposing to modify Ogihara to include a feature of Hwang. Ogihara does not need such additional features, and does not suffer from the problem identified by the Examiner. Likewise, Watanabe also does not need or desire such features of Hwang'

Further, as noted in the previous response, such a modification of Ogihara would not have been equivalent or a simple substitution of elements, as Ogihara already simply uses two filters and a comparator, with the filters directly bandpass filtering the RF pickup signal. No actual measurements are necessary, no looking up of predetermined levels, and no comparisons of the measured levels with the predetermined levels would be needed. If Ogihara were modified as suggested by the Examiner, an additional memory, a lookup capability, a computational capability to calculate the changed envelope, and two comparators would be necessary to compare the result of the calculations to the two different predetermined values. The modification

would not simplify the system of Ogihara, but add complexity.

Likewise, Watanabe sets forth a complete system for detecting many different disc types, without setting forth any suggestion to measure an amplitude of a detected wobble. The Examiner cited portion of Watanabe only pertains to a measurement of the track error signal amplitude for determining the difference in disc type, and in particular references an RFENV signal, where "a focus actuator used as the movement means is driven, and the amplitude of an RF envelope signal (RFENV), which is delivered from the reproduction signal detection means and *obtained when the light beam is moved close to and away from the optical disk*, is measured. The measured value is compared with a predetermined distinction value to make distinction to determine whether the optical disk is CD, CD-R or SD." Watanabe in col. 5, lines 35-40. This is not an envelope of the RF signal as described in Hwang', as proposed by the Examiner, but rather a different signal caused by the moving of a lens focus and unrelated to any measurement of the amplitude of a wobble. Thus, in addition to not being necessary, any modification of Watanabe would require substantial changes to Watanabe

Lastly, it is respectfully submitted that the Examiner has failed to meet the obviousness requirement of there being a reasonable chance of success for the proposed combination.

As noted previously, the Examiner is unclear what an end product of a modified Ogihara or Watanabe would look like, or how the apparent brief relied upon teachings of Hwang or Hwang', respectively, would or could be implemented by Ogihara or Watanabe to meet the claimed detection of the wobble amplitude, or the claimed comparison of the detected wobble amplitude with a pre-set wobble amplitude reference value. As noted above, for example, the two systems of Ogihara and Hwang are based on substantially different principles and the feature of Ogihara, for example, that the Examiner proposes to change would appear to be a primary aspect of the invention of Ogihara. Thus, such a modification of Ogihara would require substantial changes to Ogihara to include the signal peak-peak maxima detection scheme of Hwang. With such a change of Ogihara, it is respectfully submitted that more than a conclusion of their obviousness is required.

In view of the above, and as the remaining claims have been rejected based upon similar improper and inadequate rejection reasons, it is respectfully submitted that all claims are in patentable condition and all rejections should be withdrawn. Finally, if there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,
STAAS & HALSEY LLP

Date: 11/17/08

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